

Remarks/Arguments:

Claim Status

Claims 12-23 are currently pending. Claim 23 is new, and no new matter has been added. Support for the features of claim 23 may be found at page 1, lines 11-16 of the English translation of the specification, for example.

Claim Rejections Under 35 USC §101

Claims 12-22 stand rejected under 35 USC §101 because the claimed invention is directed to non-statutory subject matter. Applicants have amended claim 12 to clarify that the calculation unit of the vehicle performs the steps that are recited in claim 12. The remaining claims depend from claim 12 and should be allowable based upon the amendments to claim 12.

Claim Rejections Under 35 USC §103

Claims 12-22 stand rejected under 35 USC §103(a) as being unpatentable over Smith, "Understanding Parameters Influencing Tire Modeling" (hereinafter Smith) in view of Ono et al., US Patent Application Publication No. 2004/0133330 (hereinafter Ono). Applicants respectfully request reconsideration of the rejection of these claims and respectfully submit that these claims are patentable over the cited references for the reasons set forth below.

Independent claim 12 recites features that are neither disclosed nor suggested by Smith and/or Ono. Claim 12 recites: [a] [m]ethod for calculating the lateral force in a motor vehicle with an electromechanical or electrohydraulic steering system, the method comprising: recording a steering rod force of the vehicle; calculating a total restoring torque from the steering rod force by a calculation unit of the vehicle, with the said restoring torque comprising a restoring torque generated by lateral force and other restoring torques; quantitatively determining, by the calculation unit of the vehicle, the other restoring torques based on measured values; subtracting the other restoring torques from the total restoring torque for determining the restoring torque generated by the lateral force by the calculation unit of the vehicle; and determining the lateral force from the restoring torque generated by the lateral force by the calculation unit of the vehicle.

The Office Action cites Equations #20 and 21 of the Smith article as teaching the step of "calculating a total restoring torque." Applicants respectfully disagree and submit that Equations #20 and 21 both solve for self-aligning torque M_z , which is analogous to Applicants' "restoring torque generated by the lateral force," **not** Applicants' "total restoring torque." These torque terms are amply distinguished in claim 12; i.e., according to claim 12, the "total restoring torque compris[es] a restoring torque generated by lateral force and other restoring torques."

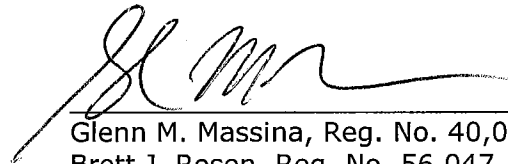
The Office Action further contends that Smith teaches the step of "subtracting other restoring torques from the total restoring torque for determining the restoring torque generated by the lateral force." Applicants respectfully disagree and submit that page 7 of the Smith article lists two equations for calculating restoring torque M_z . Smith's equation for restoring torque M_z generated by a lateral force does not account for "other restoring torques" either explicitly or implicitly (see equations 20 and 21). The Office Action contends that Equation #20 of Smith teaches that lateral torque = total torque - vertical torque. Applicants respectfully disagree and submit that **Smith does not disclose or suggest that lateral torque = total torque - vertical torque**. Smith merely discloses that Equation #20, which was derived by a foundation stiffness model, stands for the proposition that lateral torque equals lateral force divided by 6. Neither Equation #20 nor Equation #21 teach that the total self-aligning torque is the torque due to lateral and vertical forces.

Ono teaches an apparatus for calculating self-aligning torque to estimate road friction and slip angle. The Office Action cites the Ono reference for the limited purpose of teaching the step of "recording a steering rod force." Ono does not overcome the deficiencies of Smith because it does not disclose or suggest the step of "subtracting other restoring torques from the total restoring torque for determining the restoring torque generated by the lateral force." Accordingly, because claim 12 includes features that are neither disclosed nor suggested by the cited references, *prima facie* obviousness cannot be established based on the cited references. The dependent claims that stand rejected should also be allowed at least as being dependent upon an allowable base claim. Reconsideration of claims 12-22 is respectfully requested.

Conclusion

In view of the remarks set forth above, Applicants respectfully submit that this application is now in condition for allowance, which action is respectfully requested. If the Examiner believes an interview, either personal or telephonic, will advance the prosecution of this application, it is respectfully requested that the Examiner contact the undersigned to arrange the same.

Respectfully submitted,



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